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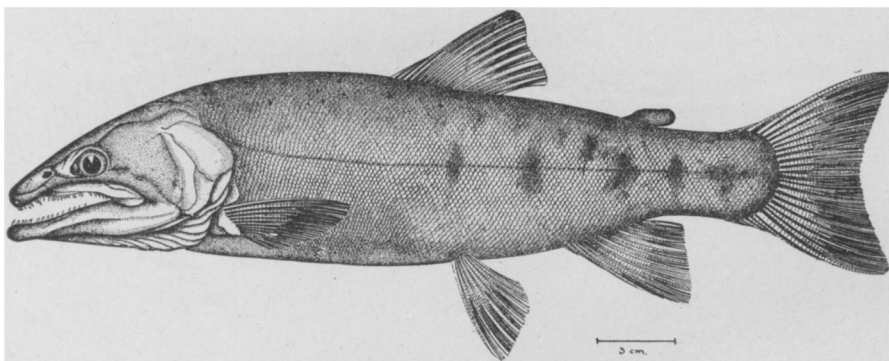
**SALMO FORMOSANUS, A NEW TROUT FROM THE MOUNTAIN STREAMS
OF FORMOSA**

BY DAVID STARR JORDAN AND MASAMITSU OSHIMA.

In a mountain stream of Central Formosa, the junior author, as governmental fishery expert for the Island of Formosa, made the unexpected discovery of a large species of trout, which seems to be new to science. The accompanying figure is drawn by Mr. Oshima.

Salmo formosanus Jordan and Oshima.

Head $3\frac{1}{3}$ in length to base of caudal; depth 4; D. III, 11; A. III, 10; P. 12; V. 9; snout $3\frac{2}{5}$ in head; eye 6; interorbital space $3\frac{1}{3}$; maxillary $2\frac{1}{4}$; pectoral $1\frac{1}{5}$; ventral 2; anal $1\frac{5}{8}$; scales in lateral series about 130 (oblique rows) in transverse series 26-22; branchiostegals 13; gillrakers on first arch 7+9.



Salmo formosanus Jordan and Oshima.

Body rather deep, moderately elongate, compressed, dorsal profile more strongly curved than that of the ventral; head large, the jaws produced (male example), interorbital space broad, nearly flat; maxillary reaching far beyond the eye; snout pointed; mouth large, slightly oblique, upper jaw shorter than the lower; eye large, anterior; nostrils close together, in front of the eye; vomer nearly flat, the shaft much depressed, the head of the bone with six teeth, the shaft with eleven teeth which are set in a zigzag series, those on

the shaft placed directly on the surface of the bone, not on a free crest; tongue with five pairs of canine-like teeth; premaxillary with eight, maxillary with twenty-five, dentary with sixteen, palatine with eighteen teeth; operculum smooth; branchiostegals well developed; gillrakers rather slender and long.

Dorsal fin inserted midway between the tip of snout and the base of caudal, the longest ray $1\frac{5}{6}$ in head; adipose dorsal nearer to the caudal than to the dorsal; caudal peduncle strongly compressed, its depth $2\frac{7}{8}$ in head; ventral inserted below the 7th branched ray of the dorsal; anal rather high, straight-edged, entirely behind the dorsal, the longest ray 2 in head, longer than the base of the fin.

Body covered with small firm scales; lateral line nearly straight, running along the middle of the side, slightly upcurved in front.

Color (in formalin) brownish gray above, belly and lower parts of the sides whitish; small dark spots scattered along both sides of the dorsal median line, none distinct on head, nor along the base of dorsal; sides with traces of large blackish bars; bases of all the fins except caudal dusky, outer margin of the fins dark; caudal fin uniformly dark; head and inner part of the mouth fuscous. Total length 335 mm.

Described from a specimen from Taiko River at Saramao, Nanto, Formosa.

Saramao is located in the middle part of the Island of Formosa just on the summit of the central mountain range. Until now there was no record in Formosa with regard to the occurrence of salmon or trout, even in the mid stream or estuary of Taiko River. It is said, however, that the aborigines who live in the vicinity of Saramao occasionally catch a trout-like fish which they value as food. By the courtesy of Mr. Tomomatsu Tsusaki, policeman at Shikikun, Mr. Oshima has received the present specimen of the species. According to his statement, it was caught by a native and was forwarded to the Police Station at Shikikun in October, 1918.

As the method of preservation was not satisfactory, almost all the markings had disappeared when the specimen was received. There is no doubt that it was actually taken in Formosa, because of the presence of red spots on the back which vanished gradually and of the fresh state of the specimen when it was forwarded to the Government Institute of Science in Taihoku.

The typical specimen is preserved in the Museum of the Institute of Science of the Government of Formosa.

Salmo formosanus belongs to the subgenus *Trutta* L., including the river trout. Two forms related to it have been described by Bleeker from China, the exact locality not known; these are *Salmo leptosoma* and *Salmo pomatops* Bleeker in his paper, "Sur quelques espèces inédites on peu connus de poissons de Chine appartenant au Muséum de Hambourg." *Verh. Akad. Amsterdam*, XVIII, 187a, pp. 14, 15.

All their species are also more or less closely related to the European brook trout (*Salmo trutta* = *S. fario*). *Salmo leptosoma* has perhaps a slenderer body than *S. saramao*, and *Salmo pomatops* has a black spot or ocellus on the opercle.